2013 FALL CATALOG

DISH, HEADEND EQUIPMENT & FIBER OPTIC

COMPLETE
SOLUTIONS

PACE

www.paceintl.com
1-800-444-PACE

LEADING, SIMPLIFYING, AND SUPPORTING

dish
AUTHORIZED DISTRIBUTOR

ABOUT
PACE

History

Pace International is an industry-leading automation and procurement specialist with expertise in supporting communication systems worldwide. As the DISH Network authorized distributor for PCO hardware and content, we offer solutions that help operators offer voice, video, and data services anywhere in their communities. Founded in 1972, Pace International's corporate headquarters is located in Rochester, Minnesota.

Mission Statement

Leading, simplifying and supporting the integration of hardware and content solutions within a complex communications marketplace.

Pace International Corporate Office

3582 Technology Drive NW

Rochester, MN 55901

800-444-PACE (7223)

507-288-1853 Local

507-285-0428 Fax

www.paceintl.com

40+ years

Pace is Celebrating 40+ Years of Service!

1972   2013

contents

LEADING, SIMPLIFYING & SUPPORTING

Complete Content and Hardware Solutions

Pace, the authorized content and hardware distributor for DISH® is your source for comprehensive multi-family solutions. From system design to deployment, technical support and billing, the DISH experts at Pace can help.

- DISH hardware and content
- Headend & distribution products
- QAM products & solutions
- Fiber products & solutions
- System design for L-band, Digital and Fiber
- Headend Build, Balance, and Burn services
- Technical support services
- Same day shipping for DISH products
- Marketing support
- Training
- ROI modeling
- Payment terms for qualified customers

Hardware Purchasing Made Simple

eDistribution™, our one of a kind online ordering tool makes researching, ordering, tracking, and procurement simple. Sign up at www.paceintl.com/products or call your account manager for your login and password.

System Design and Technical Support

We can help you with all of your system design needs, whether you are equipping new properties or making upgrades. We will design the system, supply the equipment, and make sure your deployment is supported along the way.

Your Hardware and Content Partner from Start to Finish

When deploying your next system, we will help you deliver DISH programming to your customers, from start to finish.
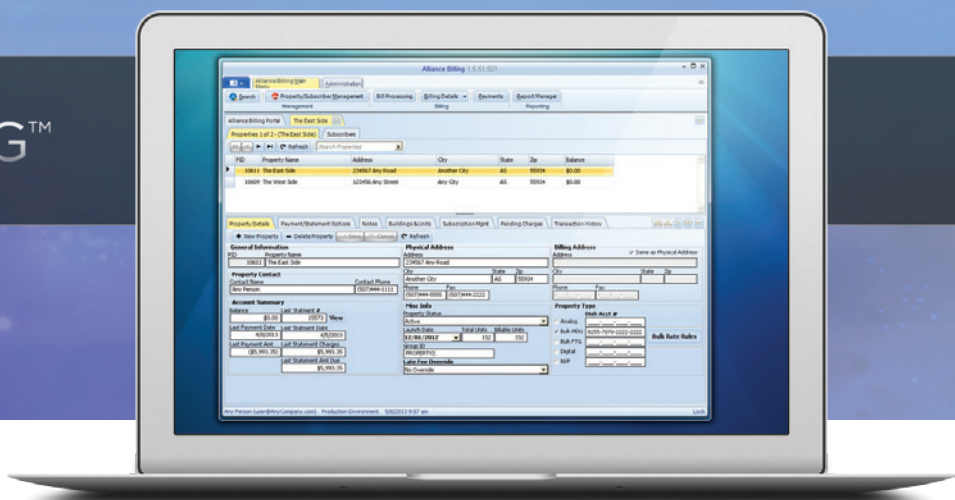
Alliance Billing by Pace

- Native support for DISH Network billing
- Secure, safe, encrypted payment processing
- Simple, fast, and affordable

Top brands we carry:

ALLIANCE BILLING™

Alliance Billing allows you to manage your properties and subscribers, bill them for DISH Network programming and any other type of products or services you are selling, either as one-time charges or subscriptions, collect payments via cash, check, credit and debit cards, print and email statements, perform reporting and much more. All wrapped up in a simple, fast and cost effective way.

Alliance Billing has what you need

- Native support for DISH Network Billing. Alliance Billing has native support for processing the Dish Network Group Report file along with error checking, taxing rules and GL account assignments. You can now bill your customers' Dish Network charges in minutes and not hours.

- Secure, Safe, Encrypted. Alliance Billing uses 256 bit SSL encryption, so you know your data is safe. In addition, all of your data is stored in our secure data warehouse, so you never need to be concerned about losing or having to backup your data.

- Reoccurring subscriptions coupled with customizable subscription rules allow for a variety of options to fit your business needs.

- Customer Portal – Allows your customers to view past statements and pay online with a credit card.

- Simple, Fast and Affordable

- Authorize.net Integrated

- Automated Credit Card Processing

- Flexible Subscriptions with rules you can define

- Payment Processing

- Prorating

- Reporting

- Flexible Taxing

- Flexible GL Account Support

- Customizable Statements

- Unique Product Catalogs for each property

For more information please contact Opie Williams

Opie Williams

Opie@paceintl.com

1-800-444-PACE (7223)

www.paceintl.com/solutions/alliance-billing

ALLIANCEBILLINGSERVICES™

Get Everything on One Bill

The ability to bundle a bill is a proven retention tool and allows you to retain the value of your voice and data products while mitigating expense.

Customize with your logo and company information.

Test Company
123 Any Street
Any City, MN 55901

Property Name:	The West Side
Account Number:	10609
Dish Account Number:	8255-7070-1111-1111
Statement Date:	4/5/13
Statement Number:	15552
Billing Questions:	(507) 555-5555

Previous Account Balance:	$0.00
Payments:	$0.00
Adjustments:	$0.00
Late Fee:	$0.00
Current Charges:	$5,046.48
Total Amount Due:	**$5,046.48**

The West Side
2614 Highland Ridge Attn Accounts Payable
Rochester, MN 55990

Combine other services onto a single bill.

Summary of Current Charges for service address 123456 Any Street, Any City, AS 55934

Description	Amount
01/14/2013 to 02/13/2013 - LOCALS	$151.00
01/14/2013 to 02/13/2013 - HBO	$1,078.14
01/14/2013 to 02/13/2013 - AMERICA'S TOP 120	$3,143.82
1/14/2013 to 1/24/2013 (Prorated for 11 days) - High Speed Internet - Main Wifi	$53.23
1/25/2013 to 2/24/2013 - High Speed Internet - Main Wifi	$150.00
1/14/2013 to 1/24/2013 (Prorated for 11 days) - Cable Maintenence Fee	$88.71
1/25/2013 to 2/24/2013 - Cable Maintenence Fee	$250.00
1/14/2013 to 1/24/2013 (Prorated for 11 days) - High Speed Internet - Leasing Office	$21.29
1/25/2013 to 2/24/2013 - High Speed Internet - Leasing Office	$60.00

Sales Tax	$50.29
Total Current Charges	**$5,046.48**

See reverse side for important information about your bill   Page 1 of 2

PLEASE DETACH THIS PORTION AND RETURN WITH YOUR PAYMENT PLEASE MAKE SURE ADDRESS SHOWS THROUGH WINDOW

The West Side
2614 Highland Ridge Attn Accounts Payable
Rochester, MN 55990

Due Date:	5/5/13
Account Number:	10609
Statement Number:	15552
Amount Due:	**$5,046.48**

Any Company
123456 Any Street
Any City, AS 55555

Amount Enclosed: $_____

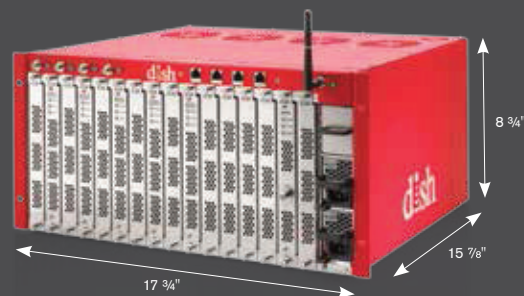Office Use Only: PCOID: 1005 PID: 10609 SID: 0

DISH EQUIPMENT
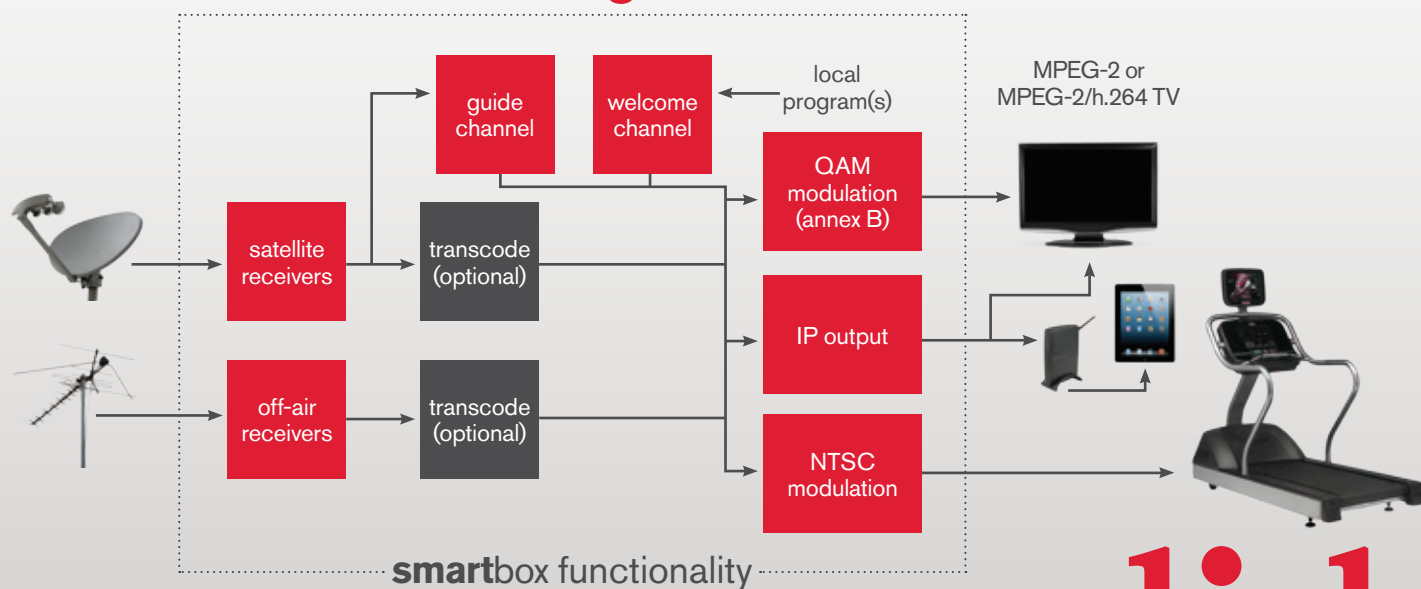
dish

pure genius

8 ¾"

17 ¾"

15 ⅞"

Introducing **smart**box from DISH, a revolutionary new video platform for the FTG market. **smart**box is the single solution for your entire property portfolio, delivering energy efficiency, flexibility, redundancy and requiring less space.

smart innovation

- Deliver HD at the lowest cost per channel. All guests can now experience HD where they once had to be satisfied with watching SD analog.

- Bring the best possible experience to every TV on your property from a single device. For example, HD for the guest rooms and public-viewing areas and analog for the treadmill.

- Allows accommodation in existing equipment rooms with a physically small size of 5RU. The chassis can be wall-mounted or rack-mounted, depending on your needs.

- More than 40 possible system configurations can be created using a single **smart**box.

- Monitoring power, system health and configuration are implemented with the integrated wireless modem. Remote management is also fulfilled with the same integrated wireless modem.

- Quick and efficient installations through the integration of all input and output signal processing normally associated with FTG video platforms.

- 40 channels of HD digital FTG TV require fewer than 300 watts of power. That is up to 90% less power consumption than current systems. The low power consumption combined with an operating temperature range of up to 122°F alleviates the need to upgrade cooling systems.

smartbox technical diagram

smartbox functionality

local program(s)

MPEG-2 or MPEG-2/h.264 TV

smartbox technical specs

chassis

General:

Dimensions (H x W x D)	8.7 x 17.6 x 15.8
Line Voltage	90 to 264 VAC, 47 to 64 Hz
Power Consumption	MAX 1500W
Operating Temperature	0 to 50 C

Blade Options:

Satellite Receiver Blade	1 to 12 blades
ATSC Receiver Blade	0 to 3 blades
QAM16 Blade	0 to 2 blades
NTSC Analog Blade	0 to 3 blades

Satellite Inputs (from LNB):

Frequency Range	950 to 2150 MHz (Stacked LNB)
Input Level Per Carrier	-65 to -25 dBm to aggregate
Return Loss	>15 dB
Impedance	75Ω
Connectors	4 x F-Female

IP Input/Output:

Connections (4)	RJ-45, GbE, Full Duples, Auto-Neg
Addressing	Unicast, Multicast (IGMP v1/2/3)
Transport Protocol	UDP/IP
Transport Format	SPTS
IP Management	HTTP, TR-069
Local User Interface	Web browser

Wireless Interface:

Connector	SMB
Impedance	50Ω
Receiver Sensitivity	-105 dBm (typical)
Transmit Power	+24.5 dBm (typical)
CDMA EV-DO Rev A	800/1900 MHz - 3.1 Mb/s (forward link), 1.8 Mb/s (reverse link)
SMS	MT/MO PDU / Text mode

satellite receiver blade

Dimensions (H x W x D)	7.5 x 0.9 x 14.5
Power Consumption	30W (typical)
Satellite Channels	8 transponders and/or 8 programs
Modulation Rates	DVB-S: 1 to 45 Msps 1/2, 2/3, 3/4, 5/6, 7/8
	DVB-S2: 5 to 33 Msps
	QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
	8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10
	Turbo FEC: 2 to 30 Msps
	QPSK: 1/2, 2/3, 3/4, 5/6, 7/8
	8PSK: 2/3, 3/4, 4/5, 5/6, 8/9
Acquisition Range	±5 MHz
Tuner Step Size	100 kHz
Optional Modules	Transcoder

ATSC receiver blade

Dimensions (H x W x D)	7.5 x 0.9 x 13.5
Power Consumption	20W (Typical)
Connector	F-Female
ATSC Frequencies	8 carriers and/or 8 programs
Frequency Range	42 to 1002 MHz
Input Level Per Carrier	-83 to -5 dBm
Return Loss	>15 dB
Impedance	75Ω
Optional Modules	Transcoder

QAM16 blade

Dimensions (H x W x D)	7.5 x 0.9 x 13.5
Power Consumption	25W (typical)
Connector	F-Female
Output Frequency	45 to 1003 MHz
Channel Bandwidth	16 channels, 2.24 to 8.05 MHz
Modulation	ITU-T J.83 Annex A, C (16QAM, 32QAM, 64QAM, 128QAM or 256QAM) ITU-T J.83B Annex B (64,256QAM)
QAM Symbol Rate	2.0~7.0 Msps
Interleaving	128/1 Annex B, 12/17 Annex A,C
Channel Plans	EIA, HRC, IRC, Manual
Output Frequency Accuracy	125 Hz
Baud Rate Accuracy	<10 ppm
Output Level	45 dBmV effective pre-combined output power
Output Attenuation	0 to 10 dB (0.5 dB step)
Output Level Flatness	(45 to 864 MHz) ±1 dB, (45 to 1003 MHz) ±2 dB
Spurious	> 60 dBc (in 4MHz)
Output Impedance	75Ω
Output Return Loss	>11 dB

NTSC analog blade

Dimensions (H x W x D)	7.5 x 0.9 x 13.5
Power Consumption	70W (typical)
Connector	F-Female
Maximum Number of NTSC Channels	24 NTSC RF with stereo audio
Frequency Range	54 to 519 MHz
Band Plan	STD, HRC, IRC
Output Level 24 NTSC Channels	45 dBmV equivalent
Output Adjust Range	10 dB
Attenuation Steps Increment	0.5 dB
Output Impedance	75Ω
Output Return Loss In-Band	≥-12 dB 54 to 519 MHz
RF Flatness Response	± 1 dB 54 to 519 MHz
Carrier Frequency Stability	5 kHz Std channel
Audio/Video Ratio	15 ±5 dB

transcoder module

Dimensions (H x W x D)	6.0 x 0.8 x 4.5
Power Consumption	30W (typical)
Conversions Supported	MPEG-4 to MPEG-4 either HD or SD with lower output bit rate (transrating) with no format conversion
	MPEG-4 to MPEG-2 either HD or SD with no format conversion
	MPEG-2 to MPEG-4 either HD or SD with no format conversion
	MPEG-2 or MPEG-4 HD to MPEG-2 SD with format conversion to 480i with no cropping

Single 1000.2 Kit - Western Arc 110°/119°/129°
DISH-1000.2KIT

Single 1000.4 Kit - Eastern Arc 61.5°/72.7°/77°
DISH-1000.4KIT

DISH 500+ with Fine Tune DISH only
185882

‣ Does not include LNBFs

‣ Look at the DISH 500 PLUS Antenna, offering regular programming, HDTV, international, and some local channels

‣ This satellite dish is used by DISH to receive signal from satellite locations 110, 118.7, and 119

‣ Also included with this dish is Mounting Bracket for optional 129 LNB

‣ The Universal Wall/Roof Mount allows you to install the dish on your roof or exterior wall of your home

DISH500+ LNBF Assembly 110°/118°/119° 144835, 185882, DP-SINGLELNBF
147427

DP Single LNBF Reman
DP-SINGLELNBF

DP Dual LNBF Reman
DP-DUALLNBF

DP Adapter
111690

Needed to make your legacy system work with Dishpro LNBs & switches

WiFi Adapter USB
WIFI-ADPT

‣ Allows wireless internet connectivity for DISH Models 722, 722k, 622, 222, 222k and 922 Sling Loaded receivers to the Internet without having to run any cables

‣ Includes: Wireless USB Adapter, USB Cable and User Manual

DISH FSS LNB
180255

DISH DBS LNB
180254

DISH Pro 118°/119° LNB Head
DISH1819LNB

DISH Stacker / Destacker Kit
SINGLEWIRE-KIT

DISH Single Wire Bullet Amplifier
176508

3.5GHz DISH Single Wire and DPP compatible Bullet Amplifier

Duo Node
185836

▸ A necessary component for all 2 Hopper Installations

Solo Node
185834

▸ Supports up to 1 Hopper

DISH Tap
190941

A splitter-type device used to tap into the satellite feed for a Hopper (Host) and then split the connection between the Hopper (Host) and a Joey (Client) or HIC (Hopper Internet Connector)

DISH Isolator
190968

For use with 2 Hoppers to isolate them from each other

Sling Adapter - 722 Receivers
SLING-ADPT-722

A Sling Adapter connected to a broadband connected to a Hopper, 722, or 722k receiver allows you to watch all your live or recorded shows on the go

DISH Pro Plus 44 Switch with Power Inserter
DPP44

▸ Provides reception from four orbital locations
▸ Provides direct connection for four single-tuner receivers or four DP Plus (dual-tuner) receivers when used with DP Plus Separators
▸ Legacy receivers do not require a DP adaptor
▸ Power inserter must be installed on To Receiver Port 1 of the switch
▸ Can cascade to three switches together
▸ Works with DP and DP Plus LNBF's and switches

DISHPro DP34 Switch with ground
141340

DPP44 RX Power Combiner
176509

▸ Eliminates the need for power inserter on port 1 of the DISH Pro Plus 44 Switch
▸ Allows power from a receiver on any port to power port 1

DISH Triplexor
DISH-TRI

4 Satellite 256 Drop DON
DON HEADEND

Fiber Stacker Up To 32 Drops
161563

ODP-4ST Video Path Fiber Receiver
175487

DON Rec/Multiswitch
ODDP-43

DISH ViP® 722k Receiver
DISH-VIP722K

- Records up to 350 Hours of SD and 55 Hours of HD Programming.
- Supports two independent viewing TVs - a remote control for each TV. High-definition (HD) and standard definition (SD) on TV1; SD on TV2
- View HD and SD programming TV1 display resolutions: 480i, 480p, 720p, 1080i (1080p for applicable Video on Demand)3 TV2 display resolution is 480i
- Independently watch TV in two rooms, or watch one show while recording another in one room
- Dolby Digital audio

DISH ViP® 222k Receiver
DISH-VIP222K

- Supports two independent TV's, with DVR, a remote control for each TV.
- HD and SD on TV1, and SD only on TV2
- 500 GB Hard Drive
- TV Resolutions 480i, 480p, 720p, 1080i, (1080p for applicable On-Demand)
- Picture in Picture

MQ2 V2.0 QAM Module - Version 2
198023

Sentinel Server
184161

Remote headend diagnostics and control (MDU)

DISH ViP® 211k HD Receiver
DISH-VIP211K

- HDMI, S-video, RCA, Component and RF Outputs
- M-Peg 4 Satellite Receiver

DISH Q-Box
DISH-QBOX

DISH Hopper with Sling
197107

- Hub for the Whole-Home TV entertainment system, Hopper is a 2-terabyte HD DVR with 3 satellite tuners and provides full DVR functionality to the other TVs in the home through thin client receivers (Joey) making up the Whole-Home DVR network.
- Compatible with both Eastern Arc and Western Arc Dish 1000
- Has built in Sling adapter
- The Hopper includes SRS TruVolume technology, which prevents annoying volume fluctuations.
- Hopper features a tile based user interface in HD, featuring super fast scrolling and a 3 hour window of future programming on a single screen with channel logos listed for easy visual reference.

DISH Joey
187894

TV2 IR Converter Kit
163933

DISH 32.0 Remote
165541

EZR-DVR Remote One Tuner DVR
177524

Compatible with Tuner#1 Models 322, 512, 522, 625, 622, 722 and 922

3.2 IR Remote Control
DISH-137207

Compatible with the following receivers: 3900, 3000, 301 and 311

DISH 21.1 IR/UHF Remote
180531

To order please contact your account manager at Pace International

- Build, balance and burn
- Same day shipping
- Receiver firmware downloads
- Online order tracking
- Terms available
- Receiver RID #'s available on eDistribution

HEADEND EQUIPMENT

Complete Solutions For Your MDU and Commercial Business

Get Expert Help on SMATV, QAM Headends, and HD Over Coax

Built, Balanced, Burned and Shipped Ready-to-Install

Pace International is a preferred supplier of DISH headends, and is known for reliable, high-quality hardware and unparalleled customer service. You can count on us for the best DISH headends built, tested and shipped ready to install.

Complete Headend Solutions from Pace Include:

- Built, Balanced, and Burned for SMATV, QAM, and HD Over Coax systems
- Order tracking information provided
- System design, tech support
- Payment terms on credit approval
- Programming support
- Knowledgeable sales staff

5 Pack Vertical Satellite Receiver Rack Mount for DISH Receivers with 2 braces
RK5PACK-DISH

- ‣ 13.5" L × 19" W × 2RU H
- ‣ 3.5 in. Between Dividers

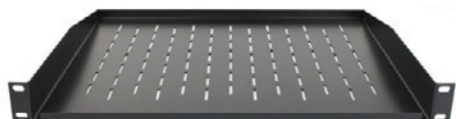## 8 Pack Vertical Rack Mount for DISH Receivers
RK8PACK-DISH

- ‣ Holds receivers securely in rack
- ‣ Provides easy access to front and back of receiver
- ‣ Includes bracing bar
- ‣ Rack screws sold separately
- ‣ Height adjustable to accommodate different receiver models
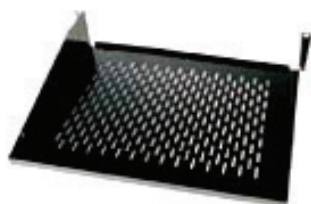
Blank rack plate

Part #	Rack Units (RU)
EZ-1	1
EZ-2	2
EZ-4	4

- ‣ Fits Standard 19 in. Rack
- ‣ Color: Black

Vented 19" Rack Shelf
ES-19-IV

- ‣ Front mounted vented shelf for 19 inch rack
- ‣ Load capacity: 80 lbs.
- ‣ Available shelf space is 18 inches wide by 15 inches deep

19 × 14½" Vented Rack Shelf
1RU-ES-19

- ‣ Front mounted vented shelf for 19 inch rack
- ‣ Load capacity: 40 lbs.
- ‣ Height is one rack unit
- ‣ Available shelf space is 18 inches wide by 15 inches deep

1RU Glide Rack Mount Shelf
1RUSR19

14.5" L × 19" W × 1RU

19" × 10" 1RU Rack Shelf for DISH Multiswitch
RKSHELF-1RU

3 Multiswitch Rack
3-MSR

- ‣ Multiswitch Rack Shelf
- ‣ 3 Shelves with 2" Between

5 Multiswitch Rack
5-MSR

- ‣ Multiswitch Rack Shelf
- ‣ 5 Shelves with 2" Between

Wall-mounting options available.

For Ordering Please contact your Account Manager at Pace International

- ‣ Build, balance and burn
- ‣ Same day shipping
- ‣ Receiver firmware downloads
- ‣ Online order tracking
- ‣ Terms available
- ‣ Receiver RID #'s available on eDistribution

Lock Box: 12" × 18" × 10"
APB121810

RTA Comm Box™

Part #	Size
RTA182410	20" × 24" × 10"
RTA263610	26" × 36" × 10"

- Designed to simplify operations for your installers
- It folds open, fits into the bottom, and can be secured to a rack in minutes
- Versatile for storage on shelves, fitting easily in small spaces

Lock Box Lock Bracket
APLB

Headend Caster Set
HECS

- Compatible with HE4PR-84 rack and CAB-1410-77
- Two casters are lockable
- Includes 4 post inserts and 4 casters
- Weight rating on each caster is 300 lbs.

HE-7226 Hold Down Clamp
EZ-SHORTCLAMP

83" 4 Post Headend Rack 25.5" Deep
HE4PR-84

72" 4 Post Headend Rack 25.5" Deep
HE4PR-72

48" Wall Mountable Rack with Hardware
HE4PR48-QAM

Rackbar Surge Protection
CPS1215RMS

This 12-outlet (6 Front and 6 Rear) rack mount surge suppressor provides 120V 15A

Power Strip

Part #	Size	Outlets
PS-6020	60"	20
PS-3612	36"	12

▸ Long multi outlet used in headends

1RU Rackmount Fan (6 Fans)
RKSHF6

▸ Rack spaces: 1RU (1.75")
▸ Rack compatibility: 19" wide
▸ Fan noise: 55 decibels
▸ Power cord length: 7 ft.

5 Input/Output 14dB L-Band Amplifier
LA-145A-T

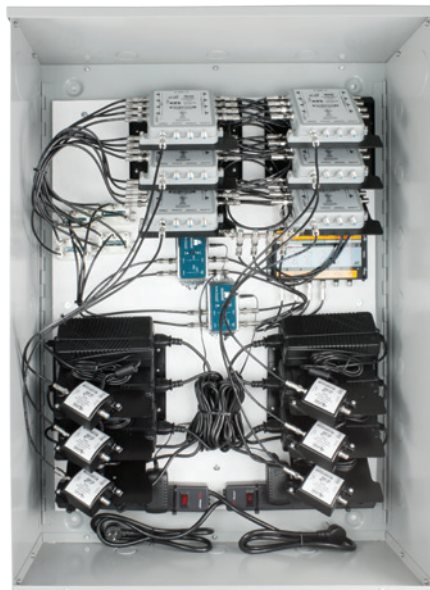▸ Includes 12V power supply
▸ Will not power LNB

L-Band Auto Level Amplifier
TW-ALA-HD

▸ Can power LNB without the use of a power inserter
▸ Auto gain selectable -1 or -5 dBm

HDD-12-IN

HDD-24-IN

L-band Distribution System for DISH Network® in a box: 'DISH-In-a-BOX'

Part #	Supports	Dimensions
HDD-12-IN	12 Receivers/ 24 Tuners	20" x 24" x 10"
HDD-24-IN	24 Receivers/ 48 Tuners	26" x 36" x 10"

▸ Customizable for specific applications
▸ Supports up 12 or 24 units from one box
▸ All parts are included and assembled in the box
▸ High quality parts
▸ Knock outs around the box for easy cable insertion
▸ Outdoor models available

Dual Power Inserter
PI-HD

4 Satellite 256 Drop DON
DON HEADEND

Fiber Stacker Up To 32 Drops
161563

ODP-4ST Video Path Fiber Receiver
175487

DON Rec/Multiswitch
ODDP-43

Micro Modulators
*Please contact your Account Manager for special pricing

Part #	Ch. No.	Part #	Ch. No.
PMM02	2	PMM31	31
PMM03	3	PMM32	32
PMM04	4	PMM33	33
PMM07	7	PMM37	37
PMM08	8	PMM41	41
PMM10	10	PMM44	44
PMM11	11	PMM51	51
PMM12	12	PMM76	76
PMM13	13	PMM77	77
PMM14	14	PMM78	78
PMM15	15	PMM79	79
PMM16	16	PMM80	80
PMM17	17	PMM81	81
PMM18	18	PMM82	82
PMM19	19	PMM83	83
PMM20	20	PMM84	84
PMM21	21	PMM85	85
PMM22	22	PMM86	86
PMM23	23	PMM87	87
PMM24	24	PMM88	88
PMM25	25	PMM89	89
PMM26	26	PMM90	90
PMM27	27	PMM91	91
PMM29	29	PMM92	92
PMM30	30		

Rack Chassis Power Supply
PPS12

‣ Built-in cooling fan
‣ Powers up to 12 mini modulators

Micro Modulators
MPCM45-X

‣ Micro modulaors from channel 2 to 74
‣ 5dBmV minimum output for a 66dB in-band carrier to noise ratio provides superior picture quality
‣ 125 Channel frequency range 54~806MHz (CATV 2~13, A1~A5, A~ZZZ, 89~125, UHF 14~69)
‣ SAW (surface acoustic wave) filtered for superior adjacent channel performance enables drop-in channel expansion
‣ BTSC stereo compatible pre-emphasis disable switch provides pass-through for stereo signals
‣ Front panel access controls enables easy setup

Agile Micro Modulator
PAMM

Agile micro mod in die cast housing. The double conversion and superior SAW filtering provides adjacent channel compatibility and spurious free output. It provides 45 dB output level from 50 to 864 MHz including CATV and TV frequencies. The channelization configuration can be changed by the up/down buttons located on the front panel.

Rack Mount Chassis
PRC12

‣ Rack mountable chassis holds 12 mini modulators with room for the PPS12 (power supply insert)
‣ Holds 12 mini modulators
‣ Equipped with grounding wire to ground the power supply
‣ 3 year limited warranty

Digital ATSC or QAM Demodulator
DAC-860

‣ Simple user interface.
‣ ATSC compliant demodulation and FEC decoding in 8VSB modes
‣ Wide range equalizer eliminates multi-path effects
‣ Auto scan of programmed channels.

Agile Micro Demodulator
PAD-806

Agile micro demodulator for off-air channels. Extracts composite video from RF. PAD-806 is a high quality agile demodulator for any TV/CATV channel in the range 54 to 806 MHz. The channel display at front panel can sow the channel selected by the up/down buttons on the front panel.

PPC-24G

12 & 24 Port Passive Combiner

Part #	Ports
PPC-12G	12 Ports
PPC-24G	24 Ports

Quality combiner employing directional coupler design principals to obtain high isolation between input ports. It provides a convenient method to combine the outputs of modulators, strip amplifiers and processors.

‣ 19" rack mount
‣ Directional coupler design
‣ High isolation, low insertion loss
‣ Test point in front panel

Full Size Modulators
*Please contact your Account Manager for special pricing

Part #	Ch. #	Part #	Ch. #
PRM55-02	2	PRM55-J	23
PRM55-03	3	PRM55-K	24
PRM55-04	4	PRM55-L	25
PRM55-06	6	PRM55-N	27
PRM55-07	7	PRM55-O	28
PRM55-09	9	PRM55-P	29
PRM55-11	11	PRM55-Q	30
PRM55-13	13	PRM55-R	31
PRM55-A	14	PRM55-S	32
PRM55-B	15	PRM55-T	33
PRM55-E	18	PRM55-U	34
PRM55-G	20	PRM55-V	35
PRM55-H	21	PRM55-W	36
PRM55-I	22		

PMSR-216

Rack Mounted Multiswitch

Part #	Ports
PMSR-208	2 x 8 Ports
PMSR-216	2 x 16 Ports

Satellite multi switch for rack mount applications. Requires satellite IF distribution from 950-2150 MHz. It will allow users to take two LNB outputs and provide input to a maximum of eight or sixteen receivers. It routes any of the input to any outputs by utilizing the 14/18V switching control from the satellite receivers. These multiswitches are an excellent way to simplify any SMATV installation.

▸ Provides RHCP and LHCP switching
▸ Power adaptor supplies power to LNBs
▸ Input selected by 14V/18V from satellite receiver employing right and left hand circular polarization
▸ Built-in amplifier to compensate for insertion loss

Agile FM Stereo Modulator
PAFM

FM stereo modulator with switchable mono or stereo capability. Designed especially for commercial installation, the PAFM provides superior signal-to-noise ratio, separation and enhanced dynamic range. The employment of a phase locked loop tuning circuit ensures that the selected station will not drift. Switchable mono or stereo capability allows for FM transmission versatility.

Full Size Agile Demodulator
PRD-806

Allows for adjacent channel operation from Master Video for broadcast or CATV channels from 50 to 800 MHz. Demodulates VHF, UHF and cable channels from 54 to 806 MHz. IRC and HRC can be activated by push button switches located in the front panel. Demodulator incorporates a phase locked loop synthesized LO in conjunction with a non-volatile microprocessor for precise frequency selection. The unit accepts any NTSC television signal in the 54 to 806 MHz frequency range and converts it to base band video and audio. Three additional outputs are provided as well as the IF output to monitor the status of the tuner.

FM Strip Amplifier
PSCA-FM

Rack mounted FM band amplifier designed cover all VHF band frequencies. Automatic gain control is provided to set the output power independent of the input level. This "gain in reserve" feature allows for consistent headend performance. The PSA-FM is a low noise, high gain amplifier with excellent signal quality and low distortion for trouble-free operations over wide ambient temperature ranges. Externally adjustable input and output filter controls allow easy re-tuning of any amplifier within band type for special alignment applications, or repair replacement. A precision voltage regulator eliminates performance changes due to loading or power line fluctuations.

PCA-30RK550

Rack Mount Distribution Amplifier

Part #	Power
PCA-30RK550	30dB gain
PCA-30RK860	30dB gain
PCA-45RK550	45dB gain

30 and 45 dB rack mounted distribution amplifiers with adjustable RF gain and tilt controls. They are high push-pull amplifiers producing signals with extremely low distortion and harmonic content. The design is capable of 158ch/129ch operation over the 5-700 MHz range. The rack mount amps are very useful for amplifying the cable input prior to the CEF channel elimination filter.

▸ Adjustable RF gain and tilt controls
▸ Up to CATV channel 113/ Off-air channel 57
▸ Wide 5-700 MHz frequency range
▸ Adjustable slope and gain control
▸ Designed for CATV distribution system
▸ Double shielded RFI enclosure
▸ Test port included on the front panel

Broadband Distribution 860 MHz Amplifier
PBIDA-30-860

▸ Dual push pull hybrid modules
▸ Inter stage variable gain and slope controls
▸ Input and output test ports
▸ Large heat sink for superior heat dissipation
▸ Aluminum chassis for excellent heat dissipation
▸ Good for CATV/MATV/SMATV headend signal launching or signal level boosting in signal distribution.

30dB 860 MHz Distribution Amplifier
PCA-30/860

19" Subrack Adaptor
5301

- ‣ Televes T.05 and T.0X series component rack mount shelf

Subrack Passive Combiner
565001

- ‣ 1 RU (1.75") chassis.
- ‣ Front panel cutout for easy input signal cable management.
- ‣ 7 "F" female type connector inputs aligned with the outputs of a fully loaded T.0X subrack assembly and adequately spaced so that the coax bridge bars provided with the units may be used to feed the combiner.
- ‣ Rear "F" female type connector combined output.
- ‣ 20 dB front panel test port enabling output testing without service interruption.
- ‣ Max. insertion loss: 12 dB @ 1002 Hz (balanced across inputs).

Programming Unit
7234

- ‣ Remote control programming unit
- ‣ Universal: can connect to any Televes programmable headend unit
- ‣ Can program all headend units when used in conjunction with the Modem IP

T.05 Switched Power Supply Unit
5030

- ‣ Switched power supply unit
- ‣ Supports T03 and T05
- ‣ Voltage: 110 Vac
- ‣ Frequency: 60 Hz
- ‣ Output voltage: 24, 18, 15, 5 Vdc

T.05 Modem IP
5837

- ‣ The IP modem lets you control Televes controllable headend's from anywhere in the world using an internet connection
- ‣ Works in conjunction with T.05 CDC Remote Headend Controller

T.05 CDC Remote TDT Headend Controller
5051

- ‣ The headend controller allows remote control of a headend by using an external modem connected to the phone line or local control by connecting a PC directly to the headend controller

T.05 Digital Transmodulator: 8PSK-256QAM HD
5012

- ‣ Transforms a QPSK satellite digital channel into a QAM digital channel
- ‣ Programmable parameters: Output frequency, SR (Symbol rate), QAM Modulation format, Frequency or output channel, Output level, Audio carrier frequency, IQ modulation format, LNB powering parameters and Remotely controllable via the CDC

T.05 Digital Transmodulator: 8PSK-1024QAM HD
5632

- ‣ Transforms a QPSK satellite digital channel into a QAM digital channel
- ‣ Programmable parameters: Output frequency, SR (Symbol rate), QAM Modulation format, Frequency or output channel, Output level, Audio carrier frequency, IQ modulation format, LNB powering parameters and Remotely controllable via the CDC

Hybrid Broadband Amplifier
4514

- ‣ Hybrid broadband amplifier
- ‣ Frequency range: 47-860 MHz
- ‣ Gain: 44 dB
- ‣ Output Level (60 db): 104 dBuV
- ‣ Test port: -30 db

T0X Switched Power Supply Unit
563901

T0X CDC IP Headend Controller
5559

‣ Configuration and Control of the modules can either be done through the handheld controller or from any Internet connection with the use of the CDC headend controller module. The remote control of the system provides two easy to use options with the TSuite computer application or through any internet browser for maximum customer choice.

T.0X 8PSK/QAM Twin Transmodulator
563701

‣ Each of the T.0X Q/8PSK modules contain 2 completely independent transmodulators that are capable of being fed from either the same or different sources with output frequencies able to be set independently across the entire range in order to provide maximum flexibility.

‣ The entire transponder's multiplex is converted to a single QAM channel so all content regardless of whether it is video or music, MPEG2 or MPEG4, SD or HD, encrypted or not, will be output unaltered eliminating the need for additional costly encoding or encryption equipment in the headend.

‣ Additionally, both inputs and outputs can be daisy-chained with the input/output of a module being added to the input/output of all the preceding modules thus eliminating the need for RF splitters and combiners.

H60 Advance (MPEG4, 3.3GHz, FO, Ethernet)
596002-5989

‣ Based on digital processing, and maintaining the advantages obtained through unique features such as its high range spectrum analyzer and combo mode, the H60 Meter is the most advanced field meter in the market

‣ Stretched frequency spectrum up to 3.3 GHz, to analyze signals from optical LNBs and LTE signals

‣ Large screen and high definition

‣ Screen with higher resolution (VGA 640 × 480)

‣ Specific measures for CATV networks: TILT, CTB, CSO and HUM

‣ Automatic measurements of RF attenuation

‣ MPEG-4

‣ Conditional Access Module CAM

‣ LTE analysis with stretched spectrum up to 3.3 GHz

‣ FO interface: CWDM (selective) and broadband

‣ HDMI output for both video and OSD

‣ DVB-T2 option

H30 Digital CATV Meter
593101

‣ Remote control and measurements

‣ Rugged and light weight

‣ Intuitive user interface

‣ Ergonomic handheld design

‣ Long battery life

‣ Lab-quality precision

‣ Comprehensive functions

‣ Automatic SW upgrades

‣ 100% automatic

QPSK/8PSK to QAM Turbo Transmodulator

Part #	Output
XTC-4	4
XTC-8	8

‣ Tunes and demodulates QPSK/8PSK satellite signals in DVB-S,DVB-S2 modulation including DISH Turbo FEC

‣ Outputs 4 or 8 transponders of SD or HD video in 4 or 8 QAM-RF Channels.

‣ Superior QAM performance with unequalized MER at 39dB, high output levels, and return loss >15dB.

‣ Internal web server allows any PC to access web pages for easy configuration and simple local and remote operation.

‣ DISH quick start wizard searches for DISH signals for a quick install.

‣ Dense with up to 8 channels in 1RU, low power for low heat and long life.

For Ordering
Please contact your Account Manager at Pace International

‣ Build, balance and burn

‣ Same day shipping

‣ Receiver firmware downloads

‣ Online order tracking

‣ Terms available

‣ Receiver RID #'s available on eDistribution

HDB2520

HDB2540

HDB2620

HDB2640

HDB2380

QAM Encoder 1RU

Part #	# of Channels	Resolution
HDB2520	2	720p
HDB2540	4	720p
HDB2620	2	1080
HDB2640	4	1080
HDB2380	8	480i

- Maestro multibox management software - local or remote configuration and management
- Color LCD for front-panel configuration and at-a-glace monitoring and status
- Breakthrough Cable Management - Each model utilizes a choice of hydra AV cables (extend from a full sized DIN connector to 7 inputs - component HD video, analog and digital audio) or DIN VGA cables.
- Ethernet port for configuration and remote management
- Analog and Digital Audio - internally encoded and broadcast as AC-3
- Integrated Closed Caption support required for ADA compliance in many applications.
- Two year warranty

ZVPRO610

ZVPRO620

ZvPro Channel Unencrypted HDMI Video Series

Part #	Channel Component or VGA Video
ZVPRO610	1
ZVPRO620	2

- ZeeVee's best video quality yet! – 1080p/i, 720p, 480p/i in every unit.
- Unencrypted component and VGA inputs – address the needs of all deployments.
- Single and dual channel versions in a smaller, fan-cooled package – for simple, reliable installation anywhere
- Only 1RU high and shelf or rack mountable

ZVPRO810

ZVPRO820

ZvPro VGA Video Series

Part #	Channel Unencrypted HDMI Video
ZVPRO810	1
ZVPRO820	2

- ZeeVee's best video quality yet! – 1080p/i, 720p, 480p/i in every unit.
- Unencrypted HDMI inputs – address the needs of all deployments.
- Single and dual channel versions in a smaller, fan-cooled package – for simple, reliable installation anywhere
- Only 1RU high and shelf or rack mountable

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FIBER OPTIC

Single Mode SC/APC-SC/APC Jumper

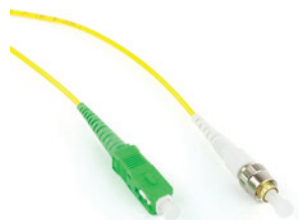| Part #	Length
SCA-SCA-PH30S-1	1M
SCA-SCA-PH30S-3	3M
SCA-SCA-PH30S-5	5M
SCA-SCA-PH30S10	10M
SCA-SCA-PH30S20	20M
SCA-SCA-PH30S30	30M

SC/APC to SC/APC 5 M Single Mode jumper
F9C11A1GCBB05M

Singlemode Simplex Riser Patch Cord

SC/APC to FC/UPS 2M Jumper
F9C21A1GCB702M

Singlemode Duplex Riser Patch Cord

2 Meter FC/UPC-Pigtail Jumper
F9G11A12GC7002M

50' SM SC/APC Duplex Pigtail
F9G21A1GCB050F

SC-APC PIGTAIL 2m LENGTH
C146523-0002

SC+SC Splice Block
C147880

FC-SC Fiber Splice Block
C130082

- ▸ FC - SC Simplex
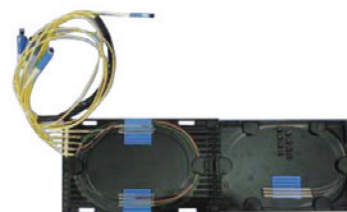- ▸ Ceramic insert
- ▸ Stainless steel

Fiber Attenuator
OTOA-1000

- ▸ Low-cost method for adding step-variable optical attenuation without interrupting connections
- ▸ Passive device intentionally induces macrobend losses around a series of restrictive curvatures
- ▸ Combination of 1dB, 2dB & 4dB loops provides step-variable attenuation from 1dB thr 7dB
- ▸ Built-in strain-relief mechanism minimizes changes in attenuation over time and temperature
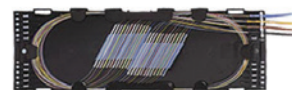

1310/1550 1 × 8, 19" RM Even Split
F377304400EVEN

LL2450 MIN 12 ct Splice Tray
91957-00

- ▸ Tray stores 12 single fusion splices
- ▸ Interchangeable inserts allow for single or mass fusion or mechanical splices
- ▸ Pre-molded snaps that securely hold buffer tubes or spiral wrap while splicing
- ▸ In-line or butt splice capability
- ▸ Pre-formed radiuses maintain bend requirements
- ▸ Interlocking base and cover provides tray stability without the use of a bolt
- ▸ Extended finger guides easily store and route loose fiber or ribbon

LL2400 24ct Splice Tray
91710-06

- ▸ Interchangeable inserts allow for single or mass fusion or mechanical splices
- ▸ Pre-molded snaps that securely hold buffer tubes or spiral wrap while splicing
- ▸ In-line or butt splice capability
- ▸ Pre-formed radiuses maintain bend requirements
- ▸ Interlocking base and cover provides tray stability without the use of a bolt
- ▸ Extended finger guides easily store and route loose fiber or ribbon

2 Way 50/50 Even Split LGX SC/APC
LGXC1X25050SAPC

- ▸ LGX 1x2 fiber optic coupler splitter

2 Slot LGX Chassis
EQFCRML2

19" Subrack Adaptor
5301

‣ Use with T03/T05 modules

T0X Switched Power Supply Unit
563901

1310nm 10dBm Optical Transmitter
233311

8 Way Optical Splitter
234401

Domestic Optical Receiver
2311

‣ Self-adjusting optical receiver
‣ Domestic optical receiver that provides a stable RF signal level at its output, independently of the optical attenuation of the distribution network of fiber optics

FO Transmitter, 1310 nm, 8dB, 8mW
PCT-FTX3R2-08AS

PCT Fiber 3RU Chassis
FLCH

Fiber Management Module
FLMNG1

Fiber Chassis PS
FLPSAC

Fiber Sub Band Receiver Modulator
FLRRXAS

12 Slot LGX Chassis
EQFCRML12

1 × 8 Even Split, 1310/1550, LGX Casette Coupler with SC/APC
LGXC1X8EVENSAPC

2-Way Fiber Node
PCT-MFN-F-AS

Optical Rx CATV With +21dBm Output
PCT-UMFN-AS

Fiber RX Power Supply 15VDC
APA1260515U

‣ Replacement power supply for parts: PCT-MFN-F-AS and PCT-UMFN-AS

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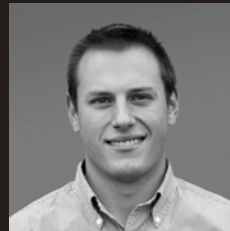|				
Allied Bolt	CST/berger	Komelon	MVP	Stihl
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Arrow	DISH	Lenox	Pico	Tradewind International
BES	Fein	Little Giant	Platinum Tools	Triplett
Black and Decker	Fluke	Louisville Ladders	Porter Cable	Video Propulsion
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